

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P242887

Luminaire Tested: S125RDRP-S1270D840-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P242887  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-27)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDRP-S1270D840-X4F0-XX-UDD-F-W  
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

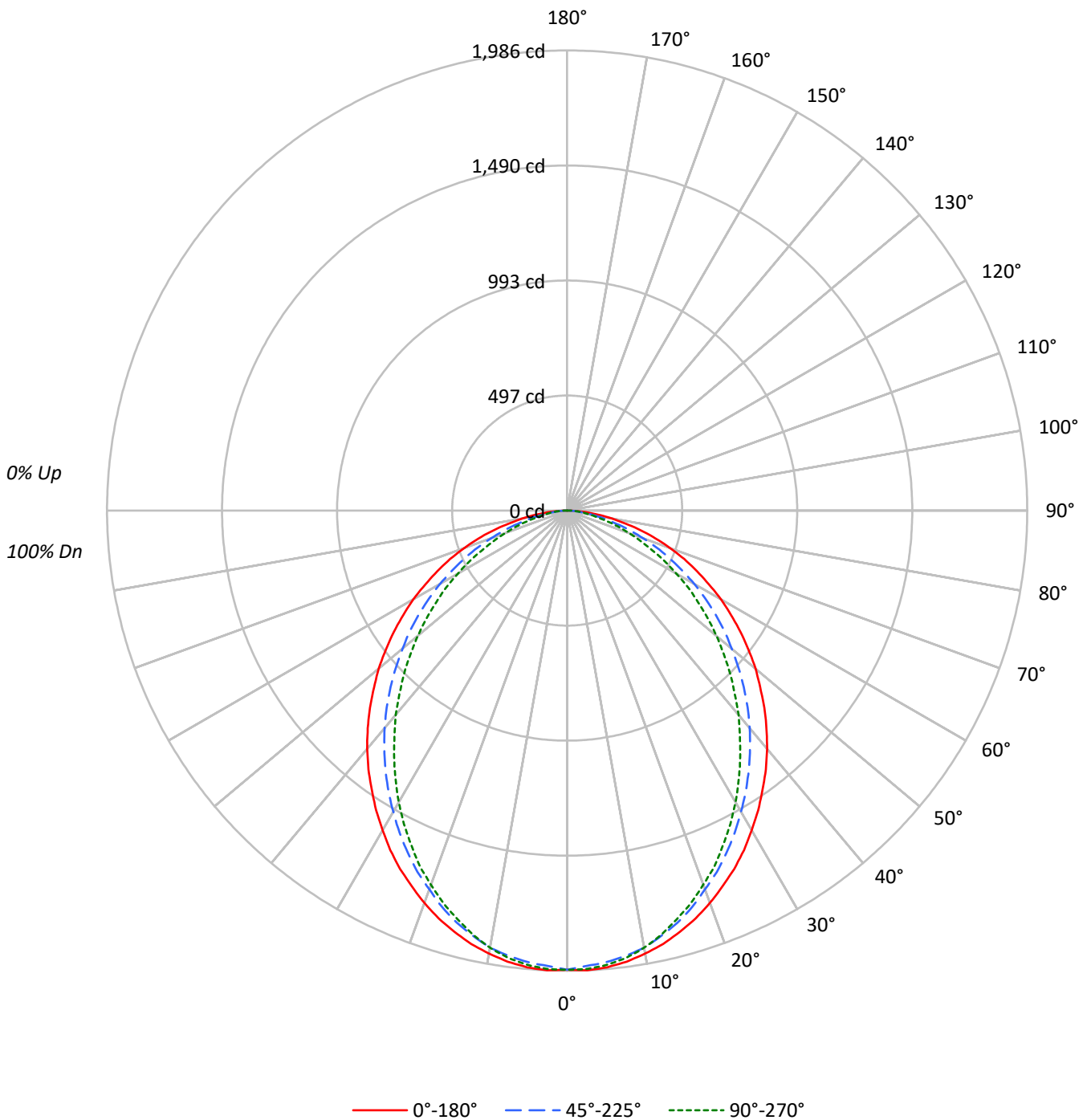
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4681.9 lumens  
Efficiency: N/A  
Efficacy: 113.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25  
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 41.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					20					
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85					85			
2	100	92	86	80	98	90	84	79	87	82	78	84	79	76	81	77	74	72					72			
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61					61			
4	84	73	64	58	82	71	64	57	69	62	57	67	61	56	64	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	44	55	48	43	53	47	43	41					41			
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	36					36			
8	62	49	41	35	61	48	41	35	47	40	35	46	39	35	45	39	34	33					33			
9	58	45	37	32	57	45	37	32	44	37	32	42	36	31	41	36	31	29					29			
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	27					27			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	14084	14084	14084
5°	14116	13956	14042
10°	14010	13826	13826
15°	13843	13545	13436
20°	13629	13154	12996
25°	13380	12770	12489
30°	13069	12320	11927
35°	12753	11856	11298
40°	12456	11373	10679
45°	12095	10831	10004
50°	11734	10244	9300
55°	11313	9681	8550
60°	10893	8999	7744
65°	10395	8205	6821
70°	9829	7215	5879
75°	9043	6083	4891
80°	7965	4776	4105
85°	6711	3906	3661

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 12095 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	186.5	4.0
10°-20°	521.2	11.1
20°-30°	755.7	16.1
30°-40°	861.0	18.4
40°-50°	839.2	17.9
50°-60°	706.3	15.1
60°-70°	494.9	10.6
70°-80°	253.7	5.4
80°-90°	63.3	1.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1463.5	31.3
0°-40°	2324.5	49.6
0°-60°	3869.9	82.7
0°-90°	4681.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4681.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1982	1982	1982	1982	1982	
5°	1979	1973	1956	1971	1968	188
15°	1881	1872	1841	1839	1826	530
25°	1706	1684	1628	1609	1592	785
35°	1470	1434	1366	1323	1302	920
45°	1203	1160	1078	1018	995	928
55°	913	865	781	714	690	816
65°	618	567	488	428	406	612
75°	329	284	222	189	178	348
85°	82	55	48	46	45	95
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1981.6	1981.6	1981.6	1981.6	1981.6
2.5°	1986.1	1981.6	1966.7	1981.6	1980.1
5°	1978.6	1972.6	1956.2	1971.2	1968.2
7.5°	1963.7	1957.7	1938.2	1950.2	1947.2
10°	1941.2	1936.7	1915.8	1920.3	1915.8
12.5°	1915.8	1909.8	1879.9	1882.8	1875.4
15°	1881.3	1872.4	1840.9	1839.4	1826.0
17.5°	1845.4	1832.0	1794.5	1787.1	1776.6
20°	1802.0	1787.1	1739.2	1731.7	1718.2
22.5°	1754.1	1739.2	1688.3	1671.8	1661.3
25°	1706.2	1683.8	1628.4	1609.0	1592.5
27.5°	1652.4	1625.4	1567.0	1541.6	1525.1
30°	1592.5	1564.0	1501.2	1466.8	1453.3
32.5°	1534.1	1499.7	1435.3	1396.4	1378.5
35°	1469.8	1433.8	1366.5	1323.1	1302.1
37.5°	1408.4	1365.0	1296.1	1245.3	1224.3
40°	1342.5	1297.6	1225.8	1168.9	1151.0
42.5°	1273.7	1227.3	1152.5	1098.6	1070.1
45°	1203.3	1159.9	1077.6	1017.8	995.3
47.5°	1130.0	1085.1	1002.8	941.4	916.0
50°	1061.2	1011.8	926.5	863.6	841.1
52.5°	986.3	935.4	856.1	787.3	764.8
55°	913.0	865.1	781.3	713.9	690.0
57.5°	838.2	787.3	706.4	640.6	619.6
60°	766.3	713.9	633.1	567.2	544.8
62.5°	690.0	640.6	558.3	498.4	475.9
65°	618.1	567.2	487.9	428.1	405.6
67.5°	546.3	495.4	419.1	362.2	344.2
70°	473.0	422.1	347.2	300.8	282.9
72.5°	401.1	351.7	282.9	241.0	230.5
75°	329.3	284.4	221.5	188.6	178.1
77.5°	255.9	220.0	167.6	142.2	133.2
80°	194.6	158.6	116.7	103.3	100.3
82.5°	134.7	103.3	77.8	73.3	71.8
85°	82.3	55.4	47.9	46.4	44.9
87.5°	34.4	23.9	22.5	22.5	21.0
90°	0.0	0.0	0.0	0.0	0.0



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**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	20.53	22.11	20.89	22.42	22.73	18.96	20.54	19.33	20.85	21.17
	3H	22.31	23.73	22.69	24.06	24.42	20.28	21.69	20.65	22.02	22.38
	4H	22.98	24.31	23.37	24.66	25.03	20.69	22.02	21.08	22.37	22.74
	6H	23.44	24.68	23.86	25.04	25.43	20.94	22.17	21.35	22.54	22.93
	8H	23.59	24.77	24.02	25.16	25.56	21.02	22.20	21.45	22.59	22.99
	12H	23.69	24.82	24.12	25.20	25.63	21.08	22.20	21.51	22.58	23.01
4H	2H	20.92	22.25	21.32	22.60	22.98	19.65	20.98	20.05	21.33	21.71
	3H	22.90	24.01	23.31	24.41	24.81	21.15	22.26	21.56	22.66	23.06
	4H	23.69	24.69	24.12	25.10	25.54	21.64	22.65	22.08	23.06	23.50
	6H	24.28	25.15	24.74	25.60	26.05	21.99	22.86	22.44	23.30	23.76
	8H	24.47	25.29	24.94	25.73	26.20	22.10	22.91	22.56	23.36	23.82
	12H	24.61	25.34	25.09	25.82	26.29	22.18	22.92	22.67	23.39	23.86
8H	4H	23.81	24.63	24.27	25.07	25.54	21.96	22.77	22.42	23.22	23.68
	6H	24.49	25.16	24.98	25.65	26.13	22.38	23.06	22.88	23.55	24.02
	8H	24.73	25.34	25.25	25.85	26.34	22.54	23.15	23.05	23.66	24.14
	12H	24.93	25.47	25.44	25.96	26.52	22.68	23.22	23.19	23.71	24.27
12H	4H	23.81	24.54	24.29	25.01	25.48	22.00	22.73	22.48	23.20	23.67
	6H	24.48	25.09	24.99	25.60	26.08	22.43	23.04	22.95	23.55	24.04
	8H	24.77	25.30	25.28	25.80	26.36	22.64	23.18	23.15	23.67	24.23